

Student Name: _____

Score: _____

Simplify and Compare the Fractions

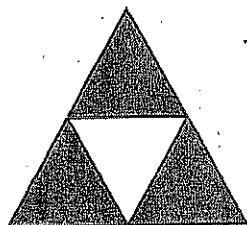
Write > or < or = in each box:

1 $\frac{1}{2} \times \frac{2}{3} \square \frac{2}{3}$	2 $\frac{3}{5} \times \frac{1}{6} \square \frac{5}{9} \times \frac{3}{5}$	3 $\frac{3}{7} \square \frac{3}{4} \times \frac{2}{5}$
4 $\frac{4}{9} \times \frac{12}{6} \square \frac{4}{8} \times \frac{3}{6}$	5 $\frac{15}{9} \square \frac{8}{12} \times \frac{2}{10}$	6 $\frac{4}{7} \times \frac{7}{8} \square \frac{4}{3}$
7 $\frac{8}{5} \times \frac{2}{4} \square \frac{3}{6} \times \frac{1}{2}$	8 $\frac{20}{16} \square \frac{14}{6} \times \frac{6}{7}$	9 $\frac{2}{3} \times \frac{8}{3} \square \frac{4}{5} \times \frac{2}{3}$
10 $\frac{1}{2} \square \frac{4}{6} \times \frac{1}{8}$	11 $\frac{4}{5} \times \frac{15}{9} \square \frac{12}{8} \times \frac{2}{8}$	12 $\frac{1}{7} \times \frac{1}{3} \square \frac{1}{21}$
13 $\frac{9}{10} \times \frac{20}{6} \square \frac{8}{10} \times \frac{14}{6}$	14 $\frac{6}{18} \times \frac{6}{3} \square \frac{9}{11}$	15 $\frac{7}{14} \square \frac{3}{4} \times \frac{16}{5}$

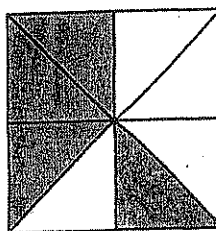
Parts of a Region

Write a fraction for the part of the region below that is shaded.

1.



2.



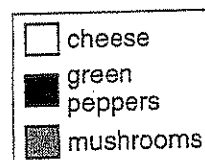
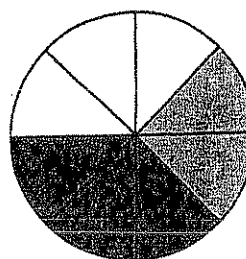
Draw a model to show each fraction.

3. $\frac{2}{4}$

4. $\frac{10}{25}$

5. What fraction of the pizza is cheese?

6. What fraction of the pizza is mushroom?



7. **Number Sense** Is $\frac{1}{4}$ of 12 greater than $\frac{1}{4}$ of 8? Explain your answer.

Test Prep

8. A region has 12 equal squares. Which is the number of squares in $\frac{1}{3}$ of the region?

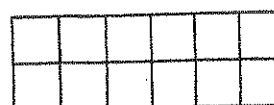
A. 3

B. 4

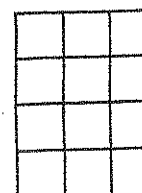
C. 6

D. 9

9. **Writing in Math** Explain why $\frac{1}{2}$ of Region A is not larger than $\frac{1}{2}$ of Region B.



Region A

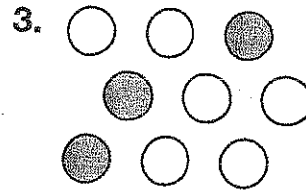
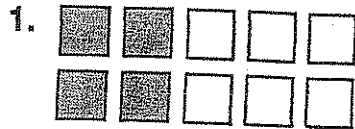


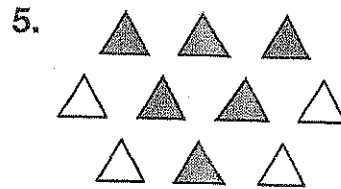
Region B

Parts of a Set

P 9-2

What fraction of each set is shaded?





Draw a picture to show each fraction as part of a set.

6. $\frac{3}{6}$

7. $\frac{2}{5}$

8. **Number Sense** $\frac{5}{5}$ of the models that Brian has are airplanes. How many are cars?

Test Prep

9. What fraction of the half-circles is shaded?

A. $\frac{1}{8}$

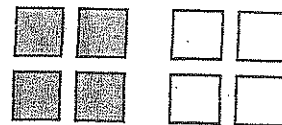
B. $\frac{1}{2}$

C. $\frac{3}{4}$

D. $\frac{2}{8}$



10. **Writing in Math** Frank said that $\frac{1}{2}$ of the squares to the right are shaded. Is he correct? Explain.



Fraction Strips

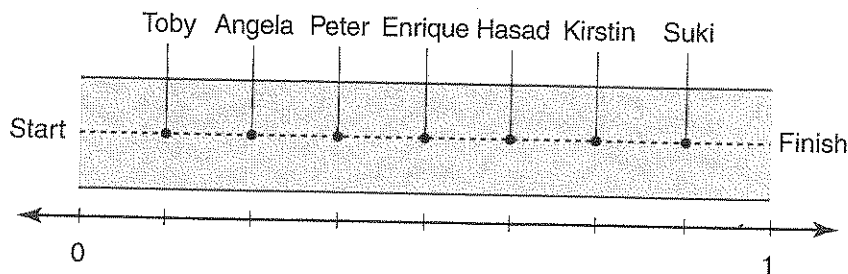
1											
$\frac{1}{2}$						$\frac{1}{2}$					
$\frac{1}{3}$				$\frac{1}{3}$				$\frac{1}{3}$			
$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$		
$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$	
$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$	
$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$	
$\frac{1}{9}$		$\frac{1}{9}$		$\frac{1}{9}$		$\frac{1}{9}$		$\frac{1}{9}$		$\frac{1}{9}$	
$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$	
$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$	

Name _____

Fractions, Length, and the Number Line

PS 9-3

Foot Race Seven people are running in a race. The picture shows how much of the race each person has completed. Write a fraction for how much of the race each person has completed. Use the number line to help.



1. Peter _____
2. Suki _____
3. Hasad _____
4. Angela _____
5. Kirstin _____
6. Toby _____
7. Enrique _____
8. Who has run the least distance? _____
9. **Writing in Math** Write a fraction for how much farther Angela must run to finish the race. Explain how you used the picture to find this fraction.



Determining Fraction Value on a Number Line

Name: _____

CC 9-3

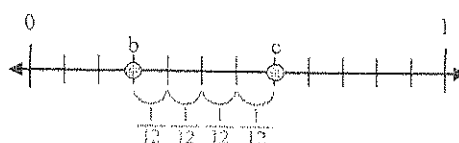
Use the number lines to answer the questions.

Answers



Ex) The number line above is divided into how many pieces? $\frac{11}{11}$

Ex) Write the location of the circle labeled 'a' written as a fraction. $\frac{8}{11}$



Ex) What is the value of 1 (written as a fraction) on this number line? $\frac{12}{12}$

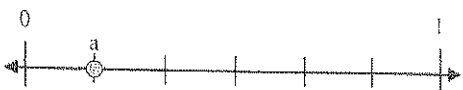
Ex) From circle 'b' to circle 'c' is how far (written as a fraction)? $\frac{4}{12}$

Ex. $\frac{11}{11}$

Ex. $\frac{8}{11}$

Ex. $\frac{12}{12}$

Ex. $\frac{4}{12}$



1) The number line above is divided into how many pieces? _____

2) Write the location of the circle labeled 'a' written as a fraction. _____



3) What is the value of 1 (written as a fraction) on this number line? _____

4) From circle 'b' to circle 'c' is how far (written as a fraction)? _____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

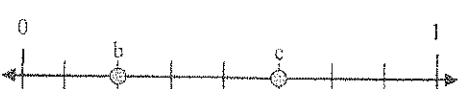
11. _____

12. _____



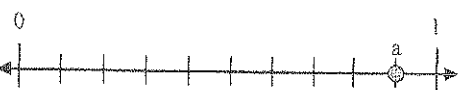
5) The number line above is divided into how many pieces? _____

6) Write the location of the circle labeled 'a' written as a fraction. _____



7) What is the value of 1 (written as a fraction) on this number line? _____

8) From circle 'b' to circle 'c' is how far (written as a fraction)? _____



9) The number line above is divided into how many pieces? _____

10) Write the location of the circle labeled 'a' written as a fraction. _____



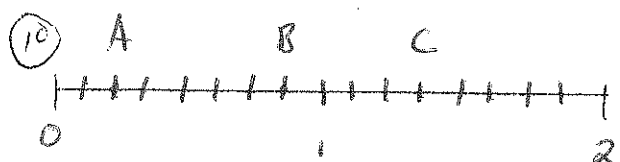
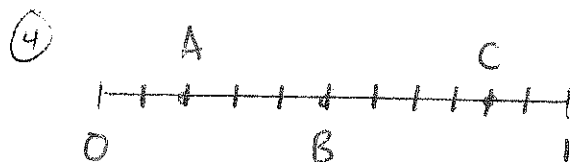
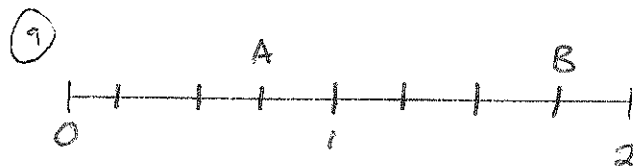
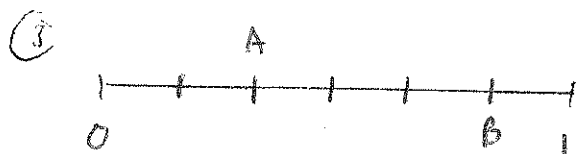
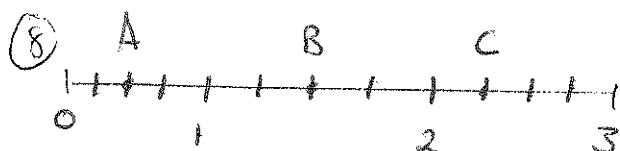
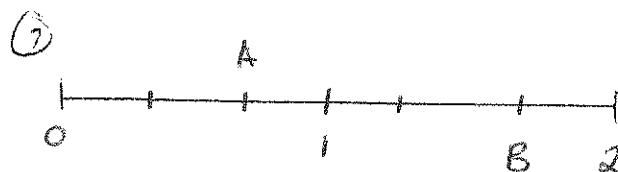
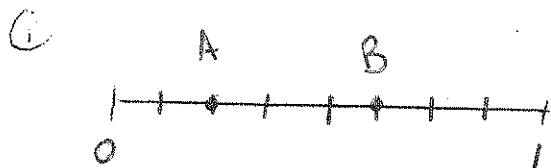
11) What is the value of 1 (written as a fraction) on this number line? _____

12) From circle 'b' to circle 'c' is how far (written as a fraction)? _____

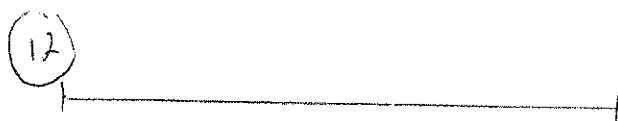
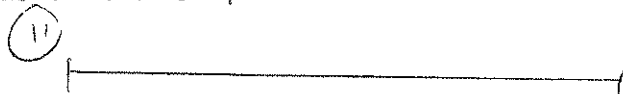
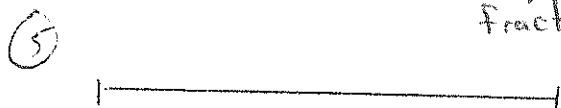
Name: _____

9-3 (Number Lines)

* Write the fraction for each letter on the number line.



* Create your own fraction number line and list 2 fractions on each line.



Name _____

Paper Fun

E 9-3
NUMBER SENSE

Read the steps in the box. Then answer the questions.

Step 1: Tyler and Ashley each have a rectangular sheet of paper.

Step 2: Tyler folds his paper in half and Ashley folds her paper into three equal parts.

Step 3: Tyler and Ashley open their papers and label the creased lines with a fraction that represents the length of the paper at the creased line.

Step 4: Tyler and Ashley refold the paper as in step 2.

Step 5: Tyler folds his paper into three equal parts and Ashley folds her paper into two equal parts.

Step 6: Tyler and Ashley open their papers and label the creased lines with fractions that represent the length of the paper at each creased line.

1. What fraction did Tyler and Ashley write on the creased line of their papers in step 3?

2. What fractions did Tyler and Ashley write on the creased lines of their papers in step 6?

3. Are there any creases on Ashley's paper that are labeled differently than those on Tyler's paper? What are they?

4. Are there any creases on Tyler's paper that are labeled differently than those on Ashley's paper? What are they?

Name _____

Time After Time

E 9-4
ESTIMATION

JANUARY						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

APRIL						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

JULY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

OCTOBER						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Estimate the fraction of each month that passed before the date given.

1. January 8 _____

2. October 17 _____

3. April 16 _____

4. July 5 _____

5. October 10 _____

6. January 25 _____

7. July 6 _____

8. April 30 _____

Name _____

PROBLEM-SOLVING STRATEGY

P 9-5

Draw a Picture

Solve each problem. Write the answer in a complete sentence.

1. Three friends divided a veggie pizza into 12 slices. If they divide the pizza equally, what fraction of the pizza would each friend get?

2. Mark is making a quilt with his grandmother. Each row of the quilt has 6 squares. There are 8 rows. $\frac{1}{2}$ of the squares are blue. How many blue squares are in the quilt?

3. Jane pulled weeds in the garden 7 times. She was paid \$5 each time she pulled weeds for less than 1 hr and \$6 each time she pulled weeds for more than 1 hr. If Jane received \$39, how many times did she pull weeds for more than 1 hr?

4. Neil needs to cut 3 long boards into 9 smaller boards. The first is 10 ft, the second is 16 ft, and the third is 18 ft. The table lists the smaller boards Neil needs. Use a drawing to show how he can divide the 3 boards so there is no waste.

Length of Board	Number Needed
4 ft	3
5 ft	4
6 ft	2

10 ft



16 ft



18 ft



Equivalent Fractions

P 9-6

Multiply or divide to find equivalent fractions.

1. $\frac{3}{8} \xrightarrow{\times 3} \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}} \xrightarrow{\times 3}$

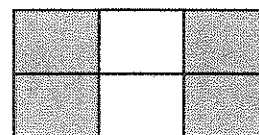
2. $\frac{12}{24} \xrightarrow{\div 2} \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}} \xrightarrow{\div 2}$

3. $\frac{8}{24} \xrightarrow{\div 8} \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}} \xrightarrow{\div 8}$

4. $\frac{5}{7} \xrightarrow{\times 2} \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}} \xrightarrow{\times 2}$

5. $\frac{11}{22}$ _____ 6. $\frac{1}{5}$ _____ 7. $\frac{5}{8}$ _____ 8. $\frac{12}{30}$ _____

9. **Number Sense** Write two fractions that name the shaded part in the figure to the right. Explain how your fractions are equivalent.



Test Prep

10. Which is NOT an equivalent fraction to $\frac{2}{3}$?

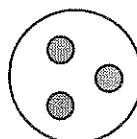
A. $\frac{4}{6}$

B. $\frac{6}{9}$

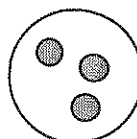
C. $\frac{9}{12}$

D. $\frac{10}{15}$

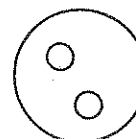
11. **Writing in Math** 12 counters are arranged in 4 dishes as shown. How could you rearrange the shaded or white counters to clearly show two equivalent fractions? What are the fractions?



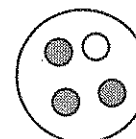
1



2



3



4

Name _____

Fractions in Simplest Form

P 9-7

Write each fraction in simplest form. If it is in simplest form, write *simplest form*.

1. $\frac{7}{8}$ _____

2. $\frac{2}{14}$ _____

3. $\frac{3}{9}$ _____

4. $\frac{7}{7}$ _____

5. $\frac{5}{30}$ _____

6. $\frac{20}{36}$ _____

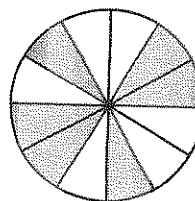
7. $\frac{7}{15}$ _____

8. $\frac{16}{22}$ _____

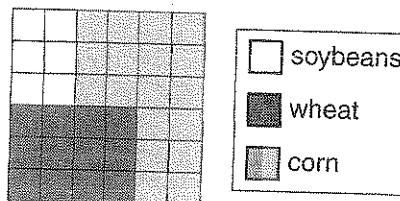
9. $\frac{8}{12}$ _____

10. $\frac{27}{36}$ _____

11. **Number Sense** What fraction of the region to the right is shaded? Write your answer in simplest form. Explain how you know.



Give each fraction in simplest form. What fraction of the farm to the right is



12. soybeans? _____

13. wheat? _____

14. corn? _____

Test Prep

15. Which fraction is in simplest form?

A. $\frac{6}{24}$

B. $\frac{7}{24}$

C. $\frac{8}{24}$

D. $\frac{9}{24}$

16. **Writing in Math** Is $\frac{11}{33}$ written in simplest form? How do you know?

Fractions 9-7

(Answer ID # 0333123)

Write each fraction in simplest form.

1. $\frac{21}{24}$	2. $\frac{7}{21}$	3. $\frac{5}{10}$	4. $\frac{18}{54}$
5. $\frac{12}{20}$	6. $\frac{32}{56}$	7. $\frac{11}{25}$	8. $\frac{60}{132}$
9. $\frac{90}{100}$	10. $\frac{42}{48}$	11. $\frac{10}{12}$	12. $\frac{8}{24}$
13. $\frac{11}{22}$	14. $\frac{10}{35}$	15. $\frac{72}{108}$	16. $\frac{72}{99}$
17. $\frac{16}{20}$	18. $\frac{9}{35}$	19. $\frac{36}{42}$	20. $\frac{16}{32}$
21. $\frac{24}{27}$	22. $\frac{11}{40}$	23. $\frac{24}{36}$	24. $\frac{81}{90}$
25. $\frac{13}{38}$	26. $\frac{4}{8}$	27. $\frac{70}{80}$	28. $\frac{12}{24}$
29. $\frac{10}{34}$	30. $\frac{8}{16}$	31. $\frac{18}{21}$	32. $\frac{9}{81}$



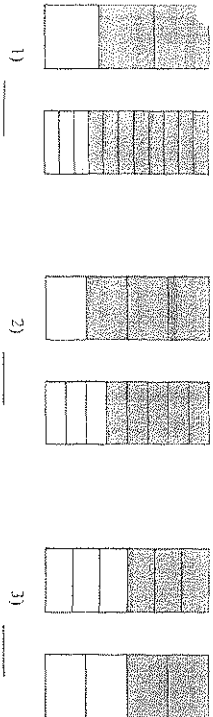
Determining Fraction Value - Bars

Name: _____

Determine which shaded fraction is larger. Use $>$, $<$ and $=$ to make the equation true.

CC9-8

Answers



1) _____

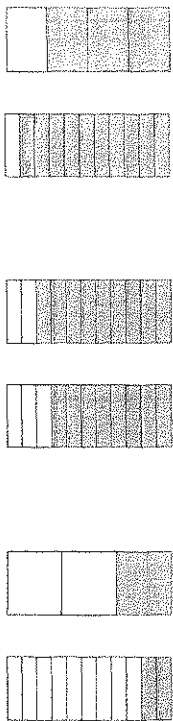
2) _____

3) _____



4) _____

5) _____



6) _____

7) _____

8) _____



9) _____

10) _____

Math

www.CoreSheets.com

1

1-10 90 80 70 60 50 40 30 20 10 5



Comparing Fractions

Name: _____

Use $<$, $>$ or $=$ to make each number sentence true.

CC9-8a

Answers

x) $\frac{6}{10} > \frac{8}{10} - \frac{7}{10}$
 $\frac{6}{10} > \frac{1}{10}$

Ex) $\frac{1}{7} + \frac{3}{7} = \frac{7}{7} - \frac{3}{7}$
 $\frac{4}{7} = \frac{4}{7}$

Ex. _____
 $>$
 Ex. _____
 $=$

1) $\frac{7}{14} ? \frac{8}{14} - \frac{6}{14}$

2) $\frac{12}{18} ? \frac{14}{18} + \frac{2}{18}$

1. _____
 2. _____

3) $\frac{4}{18} ? \frac{8}{18} - \frac{2}{18}$

4) $\frac{12}{18} ? \frac{5}{18} ? \frac{9}{18}$

3. _____
 4. _____

5) $\frac{5}{12} - \frac{4}{12} ? \frac{4}{12}$

6) $\frac{9}{19} + \frac{3}{19} ? \frac{16}{19}$

5. _____
 6. _____

7) $\frac{13}{20} ? \frac{12}{20} - \frac{4}{20}$

8) $\frac{11}{12} ? \frac{7}{12} \div \frac{1}{12}$

7. _____
 8. _____

9) $\frac{4}{12} ? \frac{3}{12} - \frac{2}{12}$

10) $\frac{3}{9} + \frac{2}{9} ? \frac{6}{9}$

9. _____
 10. _____

11) $\frac{5}{8} - \frac{2}{8} ? \frac{1}{8}$

12) $\frac{7}{12} + \frac{1}{12} ? \frac{7}{12}$

11. _____
 12. _____

13) $\frac{5}{14} - \frac{4}{14} ? \frac{7}{14} - \frac{3}{14}$

14) $\frac{4}{7} + \frac{3}{7} ? \frac{4}{7} + \frac{1}{7}$

13. _____
 14. _____

15) $\frac{12}{20} - \frac{1}{20} ? \frac{16}{20} - \frac{4}{20}$

16) $\frac{5}{17} + \frac{4}{17} ? \frac{10}{17} + \frac{2}{17}$

15. _____
 16. _____

17) $\frac{4}{19} + \frac{1}{19} ? \frac{15}{19} - \frac{3}{19}$

18) $\frac{10}{19} - \frac{7}{19} ? \frac{5}{19} + \frac{4}{19}$

17. _____
 18. _____

19) $\frac{4}{9} - \frac{1}{9} ? \frac{5}{9} + \frac{3}{9}$

20) $\frac{11}{19} + \frac{6}{19} ? \frac{5}{19} - \frac{1}{19}$

19. _____
 20. _____

Math

www.CoreSheets.com

1

1-10 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0

Fractions 9-8

(Answer ID # 0144555)

Compare. Write <, >, or =.

1. $\frac{5}{9}$ $\frac{2}{10}$	2. $\frac{4}{28}$ $\frac{3}{21}$	3. $\frac{8}{10}$ $\frac{6}{12}$
4. $\frac{2}{7}$ $\frac{4}{6}$	5. $\frac{10}{25}$ $\frac{2}{5}$	6. $\frac{5}{13}$ $\frac{8}{11}$
7. $\frac{5}{15}$ $\frac{8}{21}$	8. $\frac{6}{27}$ $\frac{5}{26}$	9. $\frac{2}{31}$ $\frac{23}{25}$
10. $\frac{6}{15}$ $\frac{12}{13}$	11. $\frac{9}{15}$ $\frac{10}{11}$	12. $\frac{26}{28}$ $\frac{3}{22}$
13. $\frac{2}{16}$ $\frac{21}{22}$	14. $\frac{5}{6}$ $\frac{4}{10}$	15. $\frac{20}{28}$ $\frac{15}{21}$
16. $\frac{12}{28}$ $\frac{14}{27}$	17. $\frac{2}{3}$ $\frac{10}{15}$	18. $\frac{5}{10}$ $\frac{4}{12}$
19. $\frac{2}{20}$ $\frac{19}{23}$	20. $\frac{6}{10}$ $\frac{11}{16}$	21. $\frac{5}{12}$ $\frac{2}{15}$
22. $\frac{1}{27}$ $\frac{20}{24}$	23. $\frac{4}{19}$ $\frac{3}{16}$	24. $\frac{25}{35}$ $\frac{5}{7}$
25. $\frac{3}{10}$ $\frac{6}{9}$	26. $\frac{5}{11}$ $\frac{8}{10}$	27. $\frac{13}{15}$ $\frac{1}{19}$
28. $\frac{4}{26}$ $\frac{585}{25}$	29. $\frac{9}{18}$ $\frac{482}{23}$	30. $\frac{3}{6}$ $\frac{4}{5}$

Name _____

Comparing and Ordering Fractions

P 9-9

Compare. Write $>$, $<$, or $=$ for each \bigcirc .

1. $\frac{2}{5} \bigcirc \frac{5}{10}$

2. $\frac{11}{16} \bigcirc \frac{5}{8}$

3. $\frac{4}{5} \bigcirc \frac{8}{9}$

4. $\frac{3}{6} \bigcirc \frac{6}{12}$

5. $\frac{2}{7} \bigcirc \frac{3}{10}$

6. $\frac{1}{4} \bigcirc \frac{2}{11}$

7. **Number Sense** Without multiplying, Emily knew that $\frac{4}{9}$ was greater than $\frac{4}{10}$. Explain how she knew.

Order the numbers from least to greatest.

8. $\frac{4}{15}, \frac{2}{5}, \frac{1}{3}$ _____

9. $\frac{4}{10}, \frac{2}{8}, \frac{1}{5}$ _____

10. $\frac{1}{9}, \frac{7}{8}, \frac{5}{6}$ _____

11. $\frac{3}{9}, \frac{1}{4}, \frac{5}{12}$ _____

12. $\frac{13}{16}, \frac{5}{8}, \frac{2}{8}$ _____

13. $\frac{1}{2}, \frac{7}{12}, \frac{4}{10}$ _____

Test Prep

14. Which fraction is greater than $\frac{1}{3}$?

A. $\frac{3}{6}$

B. $\frac{11}{36}$

C. $\frac{1}{4}$

D. $\frac{1}{12}$

15. **Writing in Math** Explain how you know that $\frac{31}{40}$ is greater than $\frac{3}{4}$, but less than $\frac{4}{5}$.

Fractions 9-9

(Answer ID # 0630303)

Order the fractions from least to greatest.

1. $\frac{1}{7}$, $\frac{8}{11}$, $\frac{1}{2}$	2. $\frac{5}{10}$, $\frac{7}{9}$, $\frac{3}{5}$	3. $\frac{2}{3}$, $\frac{2}{12}$, $\frac{1}{4}$
4. $\frac{3}{6}$, $\frac{4}{11}$, $\frac{6}{8}$	5. $\frac{2}{5}$, $\frac{3}{4}$, $\frac{1}{2}$	6. $\frac{7}{8}$, $\frac{1}{12}$, $\frac{4}{6}$
7. $\frac{2}{3}$, $\frac{5}{7}$, $\frac{4}{9}$	8. $\frac{14}{17}$, $\frac{3}{16}$, $\frac{5}{15}$	9. $\frac{9}{14}$, $\frac{18}{19}$, $\frac{7}{10}$
10. $\frac{15}{18}$, $\frac{6}{13}$, $\frac{2}{8}$	11. $\frac{1}{3}$, $\frac{7}{11}$, $\frac{5}{12}$	12. $\frac{9}{16}$, $\frac{6}{10}$, $\frac{10}{13}$
13. $\frac{3}{6}$, $\frac{14}{15}$, $\frac{8}{19}$	14. $\frac{6}{14}$, $\frac{4}{5}$, $\frac{5}{7}$	15. $\frac{3}{4}$, $\frac{2}{17}$, $\frac{4}{9}$
16. $\frac{1}{2}$, $\frac{11}{12}$, $\frac{5}{18}$	17. $\frac{8}{14}$, $\frac{2}{10}$, $\frac{10}{11}$	18. $\frac{1}{4}$, $\frac{12}{13}$, $\frac{17}{18}$
19. $\frac{13}{15}$, $\frac{4}{5}$, $\frac{3}{16}$	20. $\frac{2}{3}$, $\frac{6}{7}$, $\frac{3}{19}$	21. $\frac{1}{9}$, $\frac{4}{6}$, $\frac{1}{2}$
22. $\frac{7}{8}$, $\frac{12}{18}$, $\frac{16}{17}$	23. $\frac{12}{13}$, $\frac{7}{14}$, $\frac{2}{6}$	24. $\frac{3}{16}$, $\frac{1}{4}$, $\frac{7}{9}$

Name _____

Mixed Numbers and Improper Fractions

P 9-10

Write each mixed number as an improper fraction.

1. $3\frac{2}{5}$ _____ 2. $6\frac{1}{4}$ _____ 3. $2\frac{1}{12}$ _____ 4. $2\frac{7}{9}$ _____

Write each improper fraction as a mixed number or whole number.

5. $\frac{12}{5}$ _____ 6. $\frac{27}{9}$ _____ 7. $\frac{32}{3}$ _____ 8. $\frac{20}{12}$ _____

9. **Number Sense** Matt had to write $3\frac{8}{24}$ as an improper fraction. Write how you would tell Matt the easiest way to do so.

10. Jill has 4 granola bars. Each bar weighs $\frac{2}{3}$ oz. Write the weight of Jill's granola bars as an improper fraction and as a mixed number.

11. Nick had $1\frac{3}{4}$ gal of milk. How many pints of milk does Nick have? (Hint: There are 8 pt in 1 gal.)

Test Prep

12. Which is NOT an improper fraction equal to 8?

A. $\frac{24}{3}$

B. $\frac{49}{7}$

C. $\frac{56}{7}$

D. $\frac{64}{8}$

13. **Writing in Math** Write three different improper fractions that equal $4\frac{2}{3}$.

Name _____

Recreation Time!

E 9-10
REASONING

1. Timothy has computer class 3 times a week. Each class is 45 min long. How many hours of computer class does Timothy have per week? In 4 weeks?

2. Alex practices soccer 4 times a week for 50 min each practice. How many total hours does Alex practice soccer per week? In 2 weeks?

3. Laurel went swimming 7 times in 3 weeks. One time she swam for $1\frac{1}{2}$ hr. The other 6 times she swam for 30 min each time. How many hours did Laurel swim in 3 weeks?

4. Caitlin, Cindy, and Connie went jogging at the recreation center. Caitlin jogged for 40 min, Cindy jogged for 30 min, and Connie jogged for 70 min. What was the total amount of time they jogged altogether?

5. Dena takes karate classes every Tuesday and Thursday. Each class is 55 min long. How many hours of class will Dena have in 3 weeks?

6. Jack spent $9\frac{3}{4}$ hr practicing ice hockey with his team. How many $\frac{1}{4}$ hr is that?

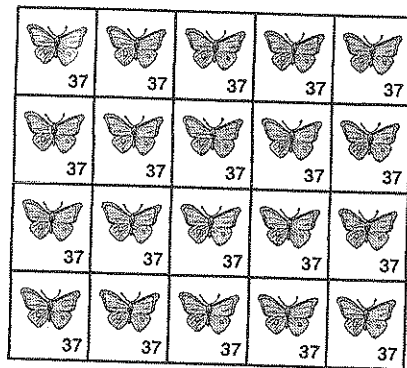
7. Misa takes 3 dance classes each week. Ballet class is 45 min long, modern dance is 50 min long, and jazz dance is 35 min long. How many hours of dance class does Misa have in 2 weeks?

8. Carlos practices piano every Monday, Wednesday, and Friday for 35 min each day. He also practices guitar every Tuesday, Thursday, and Saturday for 30 min each day. How many hours does Carlos spend practicing musical instruments each week?

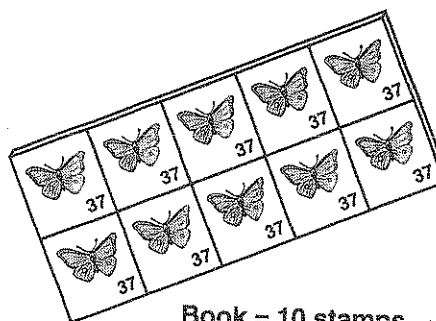
Name _____

Stamping Fractions

E 9-11
REASONING



Sheet = 20 stamps



Book = 10 stamps

Use the pictures of the stamps to answer the questions.

1. Which is a greater number of stamps, $2\frac{3}{10}$ books of stamps or $1\frac{1}{20}$ sheets of stamps?

2. Would you rather have $2\frac{1}{10}$ sheets of stamps or $3\frac{9}{10}$ books of stamps?

3. Brandon used $\frac{28}{10}$ books of stamps, and Lindsey used $1\frac{3}{4}$ sheets of stamps. Who used more stamps?

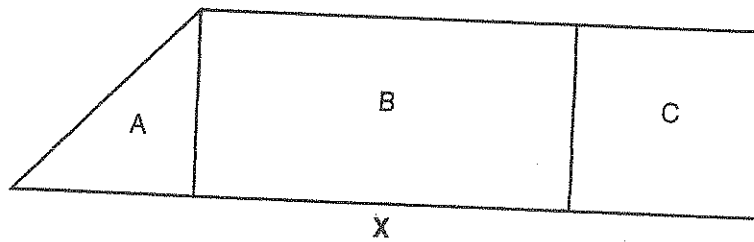
4. Thomas has $3\frac{1}{5}$ books of stamps, and Ron has 28 stamps. Who has more stamps?

5. The stamps in the sheet and book shown above cost the same amount per stamp. Which costs more, $2\frac{3}{20}$ sheets or $4\frac{2}{5}$ books?

6. Scott bought 2 books of stamps and 1 sheet of stamps. He used three stamps each day for 3 days. How many books of stamps did Scott have left after 3 days?

Shape Fractions

E 9-13
VISUAL THINKING



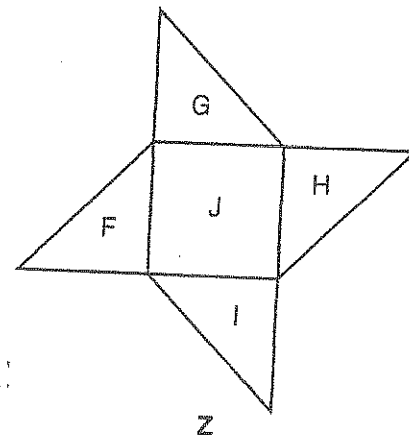
1. What fraction of trapezoid X is square C? Explain your answer.

2. What fraction of trapezoid X is rectangle B? Explain your answer.

3. What fraction of trapezoid X is triangle A? Explain your answer.

4. What fraction of shape Z is square J?
Explain your answer.

5. What fraction of shape Z is triangle G? Explain.



Fractions 9-10 - 9-14

(Answer ID # 0900688)

Write each improper fraction as a mixed number in simplest form.

1. $\frac{13}{2}$	2. $\frac{14}{5}$	3. $\frac{55}{12}$	4. $\frac{8}{6}$
5. $\frac{33}{9}$	6. $\frac{43}{8}$	7. $\frac{13}{3}$	8. $\frac{86}{16}$
9. $\frac{20}{11}$	10. $\frac{113}{17}$	11. $\frac{17}{7}$	12. $\frac{61}{18}$
13. $\frac{12}{8}$	14. $\frac{60}{13}$	15. $\frac{87}{15}$	16. $\frac{13}{6}$

Write each mixed number as an improper fraction in simplest form.

1. $6\frac{1}{5}$	2. $4\frac{6}{7}$	3. $5\frac{7}{8}$	4. $2\frac{9}{12}$
5. $1\frac{2}{9}$	6. $3\frac{1}{2}$	7. $4\frac{5}{10}$	8. $2\frac{3}{6}$
9. $6\frac{1}{11}$	10. $1\frac{13}{14}$	11. $3\frac{14}{16}$	12. $5\frac{2}{4}$
13. $1\frac{9}{14}$	14. $6\frac{1}{3}$	15. $2\frac{2}{9}$	16. $4\frac{4}{11}$

Fill in the missing number.

1. $\frac{7}{2} = 3\frac{\square}{2}$	2. $\frac{\square}{7} = 5\frac{6}{7}$	3. $\frac{13}{\square} = 6\frac{1}{2}$
4. $\frac{\square}{10} = 4\frac{3}{10}$	5. $\frac{13}{8} = \square\frac{5}{8}$	6. $\frac{29}{11} = 2\frac{7}{\square}$
7. $\frac{11}{4} = \square\frac{3}{4}$	8. $\frac{41}{\square} = 6\frac{5}{6}$	9. $\frac{21}{5} = 4\frac{\square}{5}$
10. $\frac{25}{17} = 1\frac{8}{\square}$	11. $\frac{\square}{9} = 5\frac{5}{9}$	12. $\frac{\square}{10} = 3\frac{3}{10}$
13. 9 = $\frac{\square}{\square}$	14. 21 = $\frac{\square}{\square}$	15. 60 = $\frac{\square}{\square}$

Student Name: _____

Score: _____

Simplify and Compare the Fractions

Write > or < or = in each box:

1 $\frac{4}{5} + \frac{3}{5} \square \frac{9}{5}$	2 $\frac{5}{8} + \frac{1}{8} \square \frac{5}{8} + \frac{3}{8}$	3 $\frac{10}{3} \square \frac{2}{3} + \frac{8}{3}$
4 $\frac{7}{2} + \frac{1}{2} \square \frac{5}{2}$	5 $\frac{5}{6} + \frac{1}{6} \square \frac{4}{6} + \frac{2}{6}$	6 $\frac{5}{4} \square \frac{2}{4} + \frac{1}{4}$
7 $\frac{4}{9} + \frac{8}{9} \square \frac{13}{9}$	8 $\frac{8}{7} + \frac{6}{7} \square \frac{10}{7} + \frac{2}{7}$	9 $\frac{17}{5} \square \frac{8}{5} + \frac{7}{5}$
10 $\frac{8}{3} + \frac{8}{3} \square \frac{8}{3}$	11 $\frac{5}{2} + \frac{11}{2} \square \frac{13}{2} + \frac{6}{2}$	12 $\frac{9}{8} \square \frac{7}{8} + \frac{2}{8}$
13 $\frac{9}{6} + \frac{14}{6} \square \frac{25}{6}$	14 $\frac{5}{9} + \frac{6}{9} \square \frac{7}{9} + \frac{5}{9}$	15 $\frac{9}{11} \square \frac{7}{11} + \frac{2}{11}$

Student Name: _____ Score: _____

Addition of Like Fractions

Problems

Work Space

Amy covers $3\frac{2}{7}$ miles by walking and $1\frac{4}{7}$ miles by jogging. Find the total distance covered by Amy.

Answer: _____

Kayla spent $1\frac{5}{6}$ hours by watching TV and $1\frac{4}{6}$ hours playing games. Find the total hours she spent for entertainment?

Answer: _____

Shop keeper takes $6\frac{2}{5}$ minutes to arrange apple packets and $4\frac{2}{5}$ minutes to arrange banana packets. Find the total time taken to arrange apple and banana packets?

Answer: _____

In a school's annual celebration, solo performances take place for $\frac{7}{8}$ hour and group performances take place for $1\frac{5}{8}$ hour. Find the total hours allotted for solo and group performances.

Answer: _____

Name _____

Adding Fractions with Like Denominators

PS 10-2

Walk to School Each of these students lives close to school. They all walk to school and back home every day. Use the chart for 1–6. Simplify, if necessary.

Name	Distance from Home to School
Celina	$\frac{7}{8}$ mi
Omar	$\frac{2}{8}$ mi
Amy	$\frac{4}{8}$ mi
Touriq	$\frac{3}{8}$ mi
Jessica	$\frac{1}{8}$ mi

- How far do Celina and Omar walk altogether?

- How far do Omar and Amy walk altogether?

- How far do Amy and Touriq walk altogether?

- How far do Touriq and Jessica walk altogether?

- What fraction of students walk more than $\frac{1}{2}$ mi to school?

- What fraction of students walk more than $\frac{1}{4}$ mi to school?

- Writing in Math** Sinclair said that since you cannot simplify $\frac{1}{3}$ or $\frac{2}{3}$, you cannot simplify their sum. Is he correct? Explain.

Name: _____

Adding and Subtracting Fractions**Directions:** Solve each problem below. Write the answer in the blank provided. Use the Answer Bank to help you.Answer Bank:

$\frac{2}{10}$

$\frac{4}{9}$

$\frac{7}{8}$

$\frac{2}{4}$

$\frac{1}{10}$

$\frac{9}{12}$

$\frac{2}{3}$

$\frac{6}{8}$

$\frac{5}{12}$

$\frac{5}{8}$

1. $\frac{3}{4} + \frac{1}{8} =$ _____

4. $\frac{7}{9} - \frac{1}{3} =$ _____

2. $\frac{3}{4} - \frac{1}{4} =$ _____

5. $\frac{2}{4} + \frac{3}{12} =$ _____

3. $\frac{2}{12} + \frac{3}{12} =$ _____

6. $\frac{3}{5} - \frac{4}{10} =$ _____


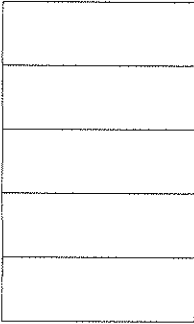
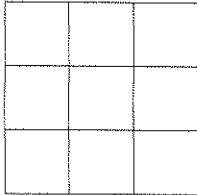
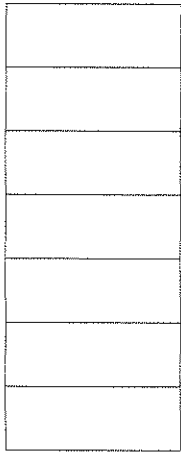
7. Before dinner, Allie did $\frac{1}{2}$ of her homework. After dinner, she did $\frac{2}{8}$ more of her homework. How much of her homework had she done all together?

9. A plant grew $\frac{3}{8}$ of an inch one week and $\frac{2}{8}$ of an each another week. How much did the plant grow in those two weeks?

8. Tommy and Reid had a contest to see whose frog could jump the farthest. Tommy's frog jumped $\frac{3}{10}$ of a meter. Reid's frog jumped $\frac{2}{10}$ of a meter. How much farther did Tommy's frog jump?

10. Julianne added $\frac{1}{3}$ of a cup of white sugar and $\frac{1}{3}$ of a cup of brown sugar to some cookie dough. How much total sugar did Julianne add?

mult. example

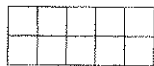
<u>Repeated Addition Problem</u>	<u>Multiplication Problem</u>	<u>Model</u>
$\frac{2}{8} + \frac{2}{8} + \frac{2}{8} =$		
$\frac{1}{5} + \frac{1}{5} + \frac{1}{5} =$		
	$\frac{2}{9} \times 4 =$	
	$\frac{1}{7} \times 5 =$	

Name: _____

Multiply Fractions

Directions: Shade the models to help you solve the following problems.

1. $\frac{2}{10} \times 4 =$ _____



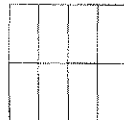
4. $\frac{1}{6} \times 3 =$ _____



2. $\frac{2}{5} \times 2 =$ _____



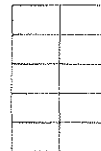
5. $\frac{1}{8} \times 7 =$ _____



3. $\frac{2}{9} \times 3 =$ _____



6. $\frac{4}{10} \times 2 =$ _____



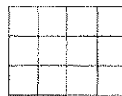
7. $\frac{3}{12} \times 3 =$ _____



8. $\frac{3}{9} \times 2 =$ _____



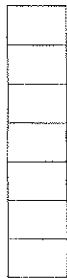
9. $\frac{5}{12} \times 2 =$ _____



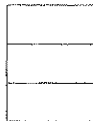
10. $\frac{1}{6} \times 5 =$ _____



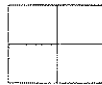
11. $\frac{1}{7} \times 4 =$ _____



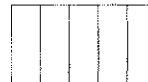
12. $\frac{1}{3} \times 2 =$ _____



13. $\frac{1}{4} \times 3 =$ _____



14. $\frac{1}{5} \times 2 =$ _____



Name: _____

Multiply Fractions

Directions: Solve the following word problems. Draw a model to help you solve the problem.
One problem has been done for you.

1. Sami, Angelina, and Nathan's mom baked a pan of brownies. Each child ate $\frac{2}{9}$ of the pan. What was the total amount eaten by all of the children?

$$\frac{2}{9} \times 3 = \frac{6}{9}$$

Model:



Model:

Problem: _____

3. A recipe for peanut butter cookies called for $\frac{1}{4}$ teaspoon of vanilla. If Caroline wanted to triple the recipe, how much vanilla would she need?

Problem: _____

Model: _____

5. Jeremiah got $\frac{1}{4}$ of a dollar for each chore he did for his mom. If he did 2 chores, how much money did he receive?

Problem: _____

Model: _____

7. A newborn baby grew $\frac{1}{12}$ of an foot one month. If she grew that much each month for 6 months, how much did she grow?

Problem: _____

Model: _____

2. Lily read for $\frac{2}{12}$ of an hour each night for 4 nights. How much total time did Lily read?

Problem: _____

Model: _____

4. For exercise, Ryan ran $\frac{2}{10}$ of a mile and then stopped and did pushups. If he did this 4 times, what was the total distance that Ryan ran?

Problem: _____

Model: _____

6. One of Matthew's blocks was $\frac{2}{12}$ of a foot tall. If Matthew stacked 5 blocks on top of one another, how tall was the stack?

Problem: _____

Model: _____

8. Jason and his friends were painting a large brick wall. If they could paint $\frac{2}{8}$ of a wall per hour, how much of the wall could they paint in 3 hours?

Problem: _____

Model: _____

mult. example 2

Name: _____

Multiply Fractions

Directions: Answer the following questions about multiplying fractions.

1. Write and answer a multiplication problem that means the same as the following:

$$\frac{1}{3} + \frac{1}{3}$$

4. Write and answer a multiplication problem that means the same as the following:

$$\frac{3}{10} + \frac{3}{10} + \frac{3}{10}$$

2. Write and answer a repeated addition problem that means the same as the following:

$$\frac{2}{6} \times 2$$

5. Write and answer a multiplication problem that means the same as the following:

$$\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$$

3. Write and answer a repeated addition problem that means the same as the following:

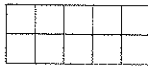
$$\frac{1}{8} \times 4$$

6. Write and answer a repeated addition problem that means the same as the following:

$$\frac{3}{12} \times 3$$

Directions: Shade the models to help you find the answers to the following problems.

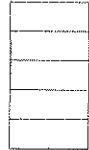
7. $\frac{2}{10} \times 4 =$ _____



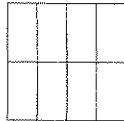
9. $\frac{1}{6} \times 3 =$ _____



8. $\frac{2}{5} \times 2 =$ _____



10. $\frac{1}{8} \times 7 =$ _____



Directions: Solve the following problems.

11. $\frac{1}{6} \times 4 =$ _____

13. $\frac{3}{9} \times 2 =$ _____

12. $\frac{2}{10} \times 3 =$ _____

14. $\frac{1}{12} \times 7 =$ _____